	Application No.	Applicant(s)
Notice of Allowability	09/896,782	HOSKINS ET AL.
	Examiner	Art Unit
	Rocio Colon	2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment filed on 6/17/04*.

2. ☒ The allowed claim(s) is/are *1-23, 25-26 and 28-33, renumbered as 1-41*.

3. ☒ The drawings filed on *28 June 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .
    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
       Paper No./Mail Date _____ .
    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)
1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date *10/23/02*
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____ .

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Craige O. Thompson on 10/29/04.

Please amend the Claims as follows:

In the amended claims filed on 6/17/04, please delete status identifier "previously

amended" and add --previously presented--.

In the amended claims filed on 6/17/04 Page 8, line 4 of claim 21, please delete the word

"and", on page 8, line 7 of claim 21, after the limitation "the control means identifying the

sectors on which an error was encountered during a previous access of the track", please add --

;and a data throttling mechanism operably connected between the buffer and a host computer, the

data throttling mechanism being operable to regulate a transfer of data between the buffer and

the host computer--.

In the amended claims filed on 6/17/04 Pages 8 and 9, please delete claim 24.

In the amended claims filed on 6/17/04, Page 10, please add the following claims:

37.   An apparatus for reading data, the apparatus comprising:
a data storage medium;
a controller configured to perform operations to read data stored on the data storage
medium in response to a request from a host, the operations comprising:

           (a) on a first read attempt performed in response to a request from the host to read
           at least three sequential sectors of data in at least one track on the media, reading all of
           the sectors of data requested by the host;

(b) storing the data read from each of the sequential sectors into a corresponding number of sequential buffers;

(c) identifying which, if any, buffers in the sequence of buffers contain data with at least one read error; and

(d) if at least one buffer in the sequence of buffers contains data with at least one read error, and if the first and the last buffers in the sequence of buffers both contain data with no read errors, then, on a subsequent read attempt performed in response to the request from the host, reading only those sectors of data corresponding to buffers that were identified as containing data with at least one read error.

38. The apparatus of claim 37, wherein the second read attempt performed in response to the request from the host is initiated within one complete revolution of the media after the first read attempt is completed.

39. The apparatus of claim 37, further comprising, on a subsequent read attempt performed in response to the request from the host, and for each buffer that was identified as containing data with at least one read error on the previous read attempt, storing the read data for the current read attempt into the corresponding buffer.

40. The apparatus of claim 37, further comprising:

on each subsequent read attempt performed in response to the request from the host, reading only those sectors of data corresponding to buffers that were identified as containing data with at least one read error on the previous read attempt; and

storing the data that is read from each of the sectors on the current read attempt into their corresponding sequential buffers;

identifying which, if any, buffers in the sequence of buffers contain data with at least one read error.

41. The apparatus of claim 40, wherein subsequent read attempts are made until no buffers in the sequence of buffers are identified as containing data with read errors.

42. The apparatus of claim 37, wherein the host's access to the data stored in the sequence of buffers is restricted by making available to the host only the data stored in those buffers in the sequence of buffers that are between the first buffer in the sequence and the lowest number buffer in the sequence of buffers that has been identified as containing data with at least one read error for the most recent read attempt.

43. A data storage device comprising the apparatus of claim 37.

REASONS FOR ALLOWANCE

2.   Claims 1-23, 25-26 and 28-43 are allowed.

3.   The following is an examiner's statement of reasons for allowance:

Regarding claims 21 and 26, the primary reason for allowance is the inclusion of a data throttling mechanism operably connected between the buffer and the host computer, the data throttling mechanism being operable to regulate a transfer of data between the buffer and the host computer.

Regarding claims 31 and 37, the primary reason for allowance is the inclusion of the step of if at least one read error, and if the first and the last buffers in the sequence of buffers both contain data with no read errors, then, on a subsequent read attempt performed in response to the request from the host, reading only those sectors of data corresponding to buffers that were identified as containing data with at least one read error.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rocio Colon whose telephone number is (703) 305-3947. The examiner can normally be reached on Mon-Thu 8:00a.m.-6:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703)305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rcv
October 14, 2004

SINH TRAN
PRIMARY EXAMINER